

MISSOURI

MIDDLE-SKILL

OCCUPATIONAL REPORT



2010—2012

OVERVIEW

The Missouri Department of Economic Development–Missouri Economic Research and Information Center (MERIC), has released this publication to provide information regarding opportunities in middle-skill occupations across Missouri, as well as in the St. Louis and Kansas City Workforce Investment Areas (WIAs). Middle-skill occupations are most frequently defined as jobs that require some education beyond high school but less than a bachelor's degree.¹

This report provides information about the number of middle-skill occupations within Missouri and the St. Louis and Kansas City WIAs and why these jobs are important to the state's labor market. As these occupations make up 41.9 percent of the total employment of Missouri's labor force, many industries face the challenge of finding enough skilled staff for these jobs. This can create stifled economic growth for the state and regions that serve these industries. This report also aims to look at how the employment market will continue to demand a steady supply of middle-skill workers with the upcoming retirements of the baby-boomer population.

The classification of a middle-skill occupation in this report was determined using the BLS education cluster classification for occupations along with the 2010–2012 Missouri, St. Louis WIA, and Kansas City WIA short-term occupational employment projections.² Educational clusters that make up a middle-skill occupation are Moderate-Term On-the-Job Training, Long-Term On-the-Job training, Work Experience in a Related Occupation, Postsecondary Vocational Awards, and Associates Degrees. Most of these trainings and degrees take roughly one year to complete, but no more than four years to attain.

MISOURI'S MIDDLE-SKILL OCCUPATIONS

Middle-skill occupations constitute a large number of jobs in Missouri's labor market. Over 41 percent of jobs fall into this category statewide, as compared with 42 percent and 41 percent for the St. Louis and Kansas City WIAs, respectively. Low-skill occupations in Missouri make up roughly 38 percent, while the high-skill occupations consist of 20 percent of Missouri labor force.

Despite slow employment growth across industries in many sectors throughout the state, some occupations are still witnessing growth. Job openings are identified as "Growth" or "Replacement" openings. Growth openings are new jobs that are added to the economy, while replacement openings are vacancies that are created by worker mobility or retirements, but are not new jobs. Sixty-two percent of Missouri's middle-skill occupations have some growth openings between 2010 and 2012.

¹ Harry Holzer and Robert Lerman, "America's Forgotten Middle-Skill Jobs: Education and Training Requirements in the Next Decade and Beyond," The Workforce Alliance (2007).

² 2010–2012 Missouri, St. Louis WIA and Kansas City WIA Short-term Occupational Employment. (2010) MERIC.



Missouri's middle-skill occupations with the highest individual employment are Registered Nurses, Customer Service Representatives, and Bookkeeping, Accounting and Auditing Clerks. All of these occupations employed a workforce greater than 37,000 in 2010. Health care professions classified as middle-skill occupations have the highest aggregate employment in Missouri and the metro WIAs. The industry had slightly less than 166,800 employees in 2010 and is expected to grow to over 171,000 by 2012 with 4,522 growth openings.

In 2009, there were an estimated 309,920 students enrolled in Missouri's public and private universities and degree granting institutions. Over 33 percent of these students were enrolled in certificate and Associates degree institutions. The number of enrollees in these programs increased by almost 14,000 students or 25 percent, from 2005 until 2009. This shows that there is an increasing demand for education and training within Missouri that would be needed for many middle-skilled occupations.³

EMPLOYMENT OPENINGS BY EDUCATIONAL LEVEL AND LOCATION—2010–2012												
SKILL & EDUCATIONAL LEVEL	MISSOURI				ST. LOUIS WIA				KANSAS CITY WIA			
	EMPLOYMENT		OPENINGS		EMPLOYMENT		OPENINGS		EMPLOYMENT		OPENINGS	
	2010	2012	TOTAL	GROWTH	2010	2012	TOTAL	GROWTH	2010	2012	TOTAL	GROWTH
Low Skill Jobs	1,048,038	1,055,753	73,389	11,526	369,872	374,036	27,651	5,143	191,597	192,858	13,670	2,221
Short-Term On-the-Job Training	1,048,038	1,055,753	73,389	11,526	369,872	374,036	27,651	5,143	191,597	192,858	13,670	2,221
Middle Skill Jobs	1,142,835	1,155,590	57,900	15,963	421,968	427,077	21,333	6,011	215,463	216,797	10,272	2,263
Moderate-Term On-the-Job Training	463,623	468,983	24,222	7,204	157,308	159,590	8,511	2,711	87,059	87,455	4,123	922
Long-Term On-the-Job Training	174,840	176,100	9,037	1,736	66,829	67,308	3,519	734	34,049	34,401	1,885	443
Work Experience in a Related Field	228,946	230,423	10,621	1,993	88,911	89,734	4,329	905	44,831	45,028	1,995	324
Postsecondary Vocational Award	160,781	163,044	8,642	2,448	60,772	61,622	3,197	948	27,340	27,508	1,396	294
Associates Degree	114,645	117,040	5,378	2,582	48,148	48,823	1,777	713	22,184	22,405	873	280
High-Skill Jobs	535,929	538,122	26,322	5,533	217,137	219,981	11,740	3,478	115,249	115,569	5,457	1,002
Bachelor's Degree	324,904	326,294	15,774	3,717	136,077	138,279	7,546	2,599	70,206	70,455	3,296	714
Bachelor's Degree + Work Exp.	111,808	111,714	5,725	620	43,611	43,785	2,302	339	25,111	25,059	1,250	115
Masters Degree	35,945	36,433	1,996	631	12,507	12,748	713	254	7,398	7,462	371	85
Doctoral Degree	27,096	27,066	1,032	68	10,045	10,210	529	169	4,205	4,257	208	54
First Professional Degree	36,176	36,615	1,795	497	14,897	14,959	650	117	8,329	8,336	332	34
Total Jobs	2,726,802	2,749,465	157,611	33,022	1,008,977	1,021,094	60,724	14,632	522,309	525,224	29,399	5,486

³ Missouri Department of Higher Education. (2011). Total Headcount Enrollment at Public Institutions, Fall 1981, Fall 2003 – Fall 2009 (Table 33).

EMPLOYMENT PROJECTIONS

MISSOURI

When looking at the 2009 to 2011 employment estimates, middle-skill occupations had decreased by 1.1 percent. However, when looking at more recent projections that take into account the economic recession; the projected growth rate for 2010 to 2012 has an employment gain of 1.1 percent. Middle-skills occupations still made up over 41 percent of employment in 2010 with over 1.14 million employees out of the 2.72 million total jobs in Missouri. These numbers are projected to increase by more than 12,700 in 2012.

The state is estimated to have close to 57,900 job openings in middle-skill occupations from 2010 to 2012, with over 15,900 of those jobs attributed to growth. Most of these growth openings are for occupations that required either Moderate-Term On-the-Job Training or Postsecondary Vocational Awards.

EDUCATIONAL LEVEL	TOP OCCUPATIONAL DEMAND FOR MISSOURI—2010–2012			
	EMPLOYMENT 2010	EMPLOYMENT 2012	OPENINGS TOTAL	OPENINGS GROWTH
Associates Degree				
Registered Nurses	65,670	67,320	2,819	1,654
Dental Hygienists	2,550	2,680	229	137
Radiologic Technologists and Technicians	5,650	5,770	241	116
Respiratory Therapists	2,910	3,010	187	98
Physical Therapist Assistants	1,780	1,870	131	92
Medical Records and Health Information Technicians	3,770	3,850	212	76
Industrial Engineering Technicians	1,050	1,110	91	52
Postsecondary Vocational Award				
Licensed Practical and Licensed Vocational Nurses	18,340	18,760	1,551	417
Insurance Sales Agents	10,890	11,170	760	279
Nursing Assistants	12,750	13,000	248	248
Fitness Trainers and Aerobics Instructors	6,970	7,160	436	182
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	4,590	4,770	306	180
Hairdressers, Hairstylists, and Cosmetologists	9,760	9,910	414	155
Automotive Service Technicians and Mechanics	16,630	16,780	731	153
Work Experience in a Related Field				
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	30,980	31,520	1,890	533
First-Line Supervisors/Managers of Retail Sales Workers	30,030	30,230	1,416	197
Sales Representatives, Services, All Other	10,830	11,010	716	179
First-Line Supervisors/Managers of Office and Administrative Support Workers	25,150	25,310	1,175	156
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	6,240	6,380	415	142
First-Line Supervisors/Managers of Production and Operating Workers	11,590	11,730	452	137
Executive Secretaries and Administrative Assistants	17,140	17,280	599	133
Long-Term On-the-Job Training				
Carpenters	18,880	19,070	583	190
Industrial Machinery Mechanics	5,110	5,280	309	165
Purchasing Agents, Except Wholesale, Retail, and Farm Products	6,780	6,930	477	149
Cooks, Restaurant	21,630	21,770	1,375	140
Electricians	10,640	10,780	621	138
Plumbers, Pipefitters, and Steamfitters	7,990	8,120	420	128
Coaches and Scouts	4,730	4,840	284	111
Moderate-Term On-the-Job Training				
Customer Service Representatives	46,270	47,680	4,261	1,407
Medical Secretaries	21,750	22,590	1,426	834
Team Assemblers	27,010	27,600	1,788	595
Pharmacy Technicians	9,370	9,900	935	535
Medical Assistants	8,260	8,680	568	412
Construction Laborers	17,680	18,050	558	375
Dental Assistants	5,080	5,340	421	257

Source: 2010–2012 Missouri Short-term Employment Projections: MERIC

ST. LOUIS WIA

In the St. Louis WIA 2009 to 2011 projections, middle-skill occupations had decreased by 0.83 percent however; the total growth rate in St. Louis for 2010 to 2012 shows a gain of 1.2 percent. The middle-skill occupations still made up a large portion of employment in 2010 with over 421,900 employees out of the 1.01 million in the St. Louis work force. These numbers are projected to increase more than 5,100 by 2012.

The St. Louis WIA is estimated to exceed 21,300 job openings in middle-skill occupations from 2010 to 2012, with slightly more than 6,000 of those jobs attributed to growth. Most of these growth openings are for occupations that required either Postsecondary Vocational Award or Moderate-Term On-the-Job Training.

TOP OCCUPATIONAL DEMAND FOR ST. LOUIS—2010–2012

EDUCATIONAL LEVEL	EMPLOYMENT		OPENINGS	
	2010	2012	TOTAL	GROWTH
Associates Degree				
Registered Nurses	28,750	29,220	892	468
Dental Hygienists	960	990	69	35
Physical Therapist Assistants	610	630	39	26
Respiratory Therapists	1,150	1,180	59	24
Medical Equipment Repairers	510	530	52	24
Electrical and Electronic Engineering Technicians	870	890	48	16
Medical Records and Health Information Technicians	1,380	1,390	65	16
Postsecondary Vocational Award				
Licensed Practical and Licensed Vocational Nurses	5,470	5,640	502	164
Preschool Teachers, Except Special Education	3,970	4,070	249	101
Fitness Trainers and Aerobics Instructors	3,360	3,460	217	94
Nursing Assistants	5,480	5,570	87	87
Insurance Sales Agents	4,410	4,500	282	87
Hairdressers, Hairstylists, and Cosmetologists	3,950	4,020	175	70
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,580	1,630	88	45
Work Experience in a Related Field				
First-Line Supervisors/Managers of Office and Administrative Support Workers	10,370	10,510	561	141
Executive Secretaries and Administrative Assistants	6,900	7,040	328	140
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	12,870	13,000	691	127
Sales Representatives, Services, All Other	5,590	5,660	349	72
Self-Enrichment Education Teachers	1,080	1,130	86	55
Private Detectives and Investigators	640	690	68	48
First-Line Supervisors/Managers of Food Preparation and Serving Workers	5,670	5,710	131	38
Long-Term On-the-Job Training				
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	1,720	1,820	128	103
Cooks, Restaurant	9,440	9,530	632	93
Coaches and Scouts	1,920	1,990	139	69
Fire Fighters	2,030	2,090	182	67
Police and Sheriff's Patrol Officers	4,930	4,990	293	60
Purchasing Agents, Except Wholesale, Retail, and Farm Products	2,560	2,610	172	49
Plumbers, Pipefitters, and Steamfitters	3,620	3,670	181	49
Moderate-Term On-the-Job Training				
Customer Service Representatives	19,550	20,290	1,943	737
Medical Secretaries	8,230	8,430	427	203
Pharmacy Technicians	3,630	3,810	331	176
Brokerage Clerks	1,310	1,490	248	173
Bookkeeping, Accounting, and Auditing Clerks	13,030	13,180	456	150
Team Assemblers	7,220	7,370	461	142
Medical Assistants	3,000	3,110	168	111

Source: 2010–2012 Missouri Short-term Employment Projections: MERIC

Source: 2010–2012 St. Louis WIA Short-term Employment Projections: MERIC

KANSAS CITY WIA

In the 2009 to 2011 Kansas City WIA projections, middle-skill occupations had decreased by 0.45 percent however; in spite of the economic decline, the growth rate for 2010 to 2012 has increased to a gain of 0.61 percent in total employment, which is the slowest of the three areas. The middle-skill occupations still made up a large sector of the employment in 2010 with over 215,400 employees of the 522,300 in the Kansas City WIA work force. By 2012 these numbers are projected to be slightly more than 1,330.

The Kansas City WIA is estimated to have over 10,270 job openings in middle-skill occupations from 2010 to 2012, with slightly more than 2,200 of those jobs attributed to growth openings. As with the other areas, most of the growth openings are in occupations that required either Postsecondary Vocational Awards or Moderate-Term On-the-Job Training.

TOP OCCUPATIONAL DEMAND FOR KANSAS CITY—2010–2012

EDUCATIONAL LEVEL		EMPLOYMENT		OPENINGS	
		2010	2012	TOTAL	GROWTH
Associates Degree					
Registered Nurses		11,750	11,910	438	183
Dental Hygienists		640	650	37	14
Respiratory Therapists		610	620	32	13
Veterinary Technologists and Technicians		250	260	20	9
Legal Secretaries		1,000	1,010	36	9
Chemical Technicians		240	240	17	7
Radiologic Technologists and Technicians		1,270	1,270	35	7
Postsecondary Vocational Award					
Licensed Practical and Licensed Vocational Nurses		2,710	2,750	204	37
Heating, Air Conditioning, and Refrigeration Mechanics and Installers		830	860	57	34
Automotive Service Technicians and Mechanics		3,080	3,110	138	31
Fitness Trainers and Aerobics Instructors		1,370	1,400	80	30
Nursing Assistants		1,390	1,410	22	22
Insurance Sales Agents		1,990	2,010	108	20
Welders, Cutters, Solderers, and Brazers		1,330	1,350	99	20
Work Experience in a Related Field					
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products		6,240	6,300	334	61
First-Line Supervisors/Managers of Food Preparation and Serving Workers		4,110	4,170	120	53
First-Line Supervisors/Managers of Construction Trades and Extraction Workers		1,690	1,740	106	49
First-Line Supervisors/Managers of Retail Sales Workers		4,850	4,890	234	37
Executive Secretaries and Administrative Assistants		3,690	3,710	127	27
Self-Enrichment Education Teachers		870	890	43	18
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products		1,090	1,100	63	15
Long-Term On-the-Job Training					
Cooks, Restaurant		4,050	4,110	298	67
Electricians		2,090	2,130	142	47
Carpenters		2,540	2,590	99	46
Plumbers, Pipefitters, and Steamfitters		1,190	1,220	77	34
Industrial Machinery Mechanics		840	870	54	30
Fire Fighters		1,290	1,310	98	25
Electrical Power-Line Installers and Repairers		780	800	66	16
Moderate-Term On-the-Job Training					
Customer Service Representatives		10,270	10,480	847	214
Construction Laborers		3,390	3,500	144	109
Pharmacy Technicians		1,540	1,610	132	66
Team Assemblers		3,490	3,540	207	53
Mixing and Blending Machine Setters, Operators, and Tenders		610	650	68	47
Assemblers and Fabricators, All Other		ND	ND	150	36
Medical Assistants		1,560	1,600	64	35

Source: 2010–2012 Missouri Short-term Employment Projections: MERIC

Source: 2010–2012 Kansas City WIA Short-term Employment Projections: MERIC

MIDDLE-SKILL AVERAGE WAGES

There is still a high employer demand for individuals in the labor force with middle-skills, with many of these jobs paying higher than average wages. All middle-skill occupations have a varied average wage. The Missouri middle-skill occupation with the highest wages earn over \$100,000, while the lowest paid middle-skill occupation pays an average just over \$19,700. On average, occupations that require an Associate Degree have the highest average wages, followed closely by Work Experience in a Related Field. These higher wages are usually attributed to the growing number of positions that include managers, supervisors, and technicians.

In Missouri, the 2010 average occupational wage was \$39,880, while the average wage for the state's middle-

skill jobs averages was slightly over \$40,180. Most middle-skill occupations require little training to attain, but their average wage is more than \$16,000 greater than the average wage of low-skill occupations. The average wage for middle-skill occupations in the St. Louis and Kansas City WIAs was higher still at \$44,000 for St. Louis and \$43,260 for Kansas City.

AVERAGE WAGES OF MIDDLE-SKILL OCCUPATIONS—2010

EDUCATIONAL LEVEL	MISSOURI	ST. LOUIS	KANSAS CITY
Associates Degree	\$52,760	\$55,523	\$56,586
Postsecondary Vocational Award	\$35,257	\$37,106	\$37,613
Work Experience in a Related Field	\$50,410	\$55,028	\$52,746
Moderate-Term On-the-Job Training	\$42,386	\$46,716	\$45,997
Long-Term On-the-Job Training	\$32,891	\$35,761	\$35,693

CONCLUSION

Missouri, St. Louis, and Kansas City WIA data presented in this report suggest that middle-skill occupations are still alive and thriving even in the current economy. They continue to make up the largest portion of employment in Missouri and the metro WIAs. As the economy begins to recover, more Americans will need the education and training required for employment in the new middle-skill growth occupations. These jobs provide a unique opportunity for Missourians, as employees can gain the skills and training for these careers in a shorter period of time with above average wages for many of the occupations.

Missouri has a network of 12 community college districts with 19 campuses that serve the state. These training facilities offer the work force the education they need to gain employment in growing middle-skill occupations. These middle-skill occupations not only employ a large share of Missouri's labor force, but they also support the necessary high-skill occupations. Health aid professionals support doctors and surgeons, construction workers and electricians will carry out the plans of architects and engineers, and educational administrators make it possible for teachers and professors to educate the future workforce.

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